

The Relationship between Facebook and Body Image

Tovah Sloman

Laurentian University

Abstract

The purpose of this study is to analyze the frequency of specific activities on Facebook that have a correlation with low body image. Social media websites (SMW) such as Facebook influence mental health which has been reinforced by research. Correlations have been found between Facebook use and various psychological factors such as self-esteem. Body image has become of great concern in general, especially for those who use social networking sites. Previous studies have found conflicting results when observing gender differences. Prior research has found that males and females are shown to have poor body image depending on how often either gender engages in certain activities on Facebook. Therefore, it is predicted that males and females will have low body image due to high activity usage on Facebook. Sixty undergraduate students from Laurentian University were used as the sample. Participants were asked to complete a demographic questionnaire which included gender and age, a Multidimensional Body-Self Relations Questionnaire which gave an accurate score on body image, and a Self-Report Questionnaire which measured the frequency of Facebook usage. Results of this study may contribute to helping clinicians who work with college students that may be suffering from depression, anxiety, and/or low self-esteem related to poor body image.

Keywords: social media websites

Table of Contents

Abstract	2
Literature Review	4
Present Study	10
Hypotheses	11
Method	11
Participants	11
Materials	12
Procedure	13
Results	13
Discussion	14
Limitations	19
Conclusion and Future Directions	20
References	22
Appendix A: Recruitment Script	25
Appendix B: Demographic Questionnaire	26
Appendix C: Multidimensional Body-Self Relations Questionnaire	27
Appendix D: Self-Report Questionnaire	31
Appendix E: Adult Consent Form	32
Appendix F: Debriefing Form	33
Appendix G: Frequency of Facebook Activities	34
Appendix H: Figures Displaying Results	35
Appendix I: Self-Report Questionnaire Item Two Results	41

The Relationship between Facebook and Body Image

Facebook has grown to be the most popular SMW on the internet. A SMW is defined as: “(1) A construct of a public or semi-public profile within a bounded system, (2) an articulate list of other users with whom those users share a connection, and (3) view and traverse their list of connections and those made by others within the system” (Walz, 2009, p. 9). There are over 500 million active users on Facebook (Rutledge, Gillmor, & Gillen, 2013, p. 1). Facebook has become easily accessible through the use of mobile devices (Grosbeck, Bran, & Tiru, 2011, p. 1425). Ninety six percent of students reported using this site and time spent on Facebook is roughly from 30 minutes to one hour and a half (Rutledge, et al., 2013, p. 1). Since there is an ease of access to this SMW, one has to consider the influence it has on a person’s life psychologically.

Literature Review

Previous studies stated that Facebook’s popularity is related to implications such as psychological well-being and identity construction (Anderson, Fagan, Woodnutt, & Chomorro-Premuzic, 2012; Rutledge et al., 2013). Kalpidou, Costin, and Morris (2011) developed one of the first studies that examined Facebook and its relationship to one’s well-being. After this study was published, other studies were developed to attempt to analyze Facebook as well as its relationship to many psychological factors such as self-esteem (Rutledge et al., 2013, p. 1). However, there is a limited amount of empirical work on the links between Facebook and body image (Rutledge et al., 2013, p. 1). Body image refers to the multifaceted psychological experience of embodiment, especially but not exclusively to one’s physical appearance (T. F. Cash, 2004, p. 1). A person’s well-being is essential to look at since it is the first building block

to body image. Well-being is directly correlated to self-esteem according to numerous studies (Dogan, Totan, & Sapmaz, 2013; Mann, Hosman, Schaalma, & Vries, 2004). Self-esteem is used to refer to a personality variable that represents the way people generally feel about themselves (Brown & Marshall, 2006, p. 2). As stated by Dogan et al. (2013), 46% of the total change in self-esteem is partially explained by psychological well-being (p. 38). Self-esteem was found to be the most dominant and powerful predictor of well-being which includes happiness (Mann et al., 2004, p. 358). Well-being is not the same as happiness, although the terms are often used interchangeably. Well-being is a broad category of phenomena that includes people's emotional responses, domain satisfactions, and global judgements of life satisfaction (Hoorn, 2007, p.1). Therefore, body image is correlated to self-esteem and self-esteem is a strong predictor of one's well-being.

Kalpidou et al. (2011) has examined how Facebook use and attitudes towards Facebook relate to one's well-being. Kalpidou et al. (2011) believed that exploring this relationship would help them understand how Facebook variables (time on Facebook, number of Facebook friends and attitudes towards Facebook) and well-being variables (social, emotional, academic and adjustment to college) differ among students in college (first years and upper years) (p.184). Kalpidou et al. (2011) measured Facebook variables by using the Facebook Intensity Scale (p.185). According to Kalpidou et al. (2011), this scale consists of measures for time spent on Facebook (1 = less than 10 minutes, 2 = 10-30 minutes, 3 = 31-60 minutes, 4 = 1-2 hours, 5 = 2-3 hours, 6 = more than 3 hours), number of Facebook friends (1 = 10 or fewer, 2 = 11-50, 3 = 51-100, 4 = 101-150, 5 = 151-200, 6 = 201-250, 7 = 251-300, 8 = 301-400, 9 = more than 400) and attitudes towards Facebook (p.185). Kalpidou et al. (2011) included six statements that measured attitudes towards Facebook, for example, "I am proud to tell people that I am on Facebook"

(p.185). Kalpidou et al. (2011) rated the statements about attitudes towards Facebook on a five point Likert Scale (1 = strongly disagree to 5 = strongly agree) (p. 185). To measure self-esteem, Kalpidou et al. (2011) used the Rosenberg Self-Esteem Scale which included 10 items rated on a four point Likert Scale (1 = strongly disagree to 4 = strongly agree), for example, “I feel that I am a person of worth, or at least on an equal plane with others” (p. 185). To measure adjustment to college, Kalpidou et al. (2011) used the Student Adaptation to College Questionnaire. This questionnaire is a 67 item inventory that is divided into four subscales (academic adjustment, social adjustment, personal-emotional adjustment and institutional attachment) (Kalpidou et al., 2011, p. 185). The Student Adaption to College Questionnaire assesses a student’s ability to cope within their institution (Kalpidou et al., 2011, p. 185). Kalpidou et al. (2011) found that spending a lot of time on Facebook is associated with low self-esteem (p. 186). Those who spent a great amount of time on Facebook had many Facebook friends which led to low academic adjustment scores (Kalpidou et al., 2011, p. 186). Interestingly, those with a strong emotional connection to Facebook reported lower self-esteem (Kalpidou et al., 2011, p. 186). These results were anticipated because previous studies reported high levels of internet use was associated with low levels of social loneliness and higher levels of emotional loneliness (Moody, 2001, p. 395). Kalpidou et al. (2011) showed that a strong emotional connection to Facebook leads to lower self-esteem which negatively influences their well-being (p. 186).

Thompson (2012) was the first to explore gender differences and social networking communication. For his methods, Thompson (2012) gave out a Demographic Questionnaire which consisted of gender and age (p. 90). Next, participants were given a survey regarding internet use and social networking sites and Facebook use, for example, “In the past week how many minutes per day have you spent on the internet?” (Thompson, 2012, p. 90). Users were

then divided into two groups based on the amount of time spent on the internet and Facebook, which were light users and heavy users (Thompson, 2012, p. 90). Light users are individuals that use the internet/Facebook less than one hour per day (Thompson, 2012, p. 90). Heavy users were individuals who used internet/Facebook more than one hour per day (Thompson 2012, p. 90). A Thoughts about Facebook Use Survey was distributed and the items were adapted from the Facebook Intensity Scale as well as the Facebook Compulsion Inventory (Thompson, 2012, p. 94). The Facebook Compulsion Inventory is a 15 item survey that inquires about stress and anxiety related to Facebook use, for example, “I wish I did not have the need for Facebook” (Thompson, 2012, p. 94). Thompson, (2012) found females were higher for certain items: “‘I feel closer with my friends on Facebook than my friends I see every day’, ‘Facebook usage sometimes leads me to feel stressed’, ‘if I cannot access Facebook I feel anxious and upset’ and ‘the pictures of others lead me to have a negative self body image’” (p. 94). Alongside females, males reported that the thought of getting off Facebook leaves them stressed, therefore, parting with Facebook leaves males stressed (Thompson, 2012, p. 94). In conclusion, Thompson (2012) has shown that gender differences are found to be related to anxiety and stress from Facebook use (p. 97).

Haferkamp, Eimler, Papadakis, and Kruck (2012) examined gender differences and their online motives (p. 91). Based on studies emphasizing gender-related differences within internet communication as well as behavior, it can be assumed that males and females have different motives regarding their SMW usage (Haferkamp et al., 2012, p. 91). Motivation and usage have been correlated in regards to SMW (Haferkamp et al., p. 92). Participants had a StudiVZ account which is an equivalent of Facebook (Haferkamp et al., p. 92). Haferkamp et al. (2012) employed an online survey which included socio-demographic variables such as age and

occupational activity to control for potential impact on other variables being assessed (p. 93). Haferkamp et al. (2012) implemented a content analysis which was conducted by the number of friends, groups and photos and number of words (p. 93). This study was placed in 2010 when there was no privacy settings for StudiVZ accounts, thus, their profile information was easily accessible (Haferkamp et al., 2012, p. 92). From observed photos, Haferkamp et al. (2012) concluded that males edited their profile picture more than females (p. 95). To record these motivations of hosting an online profile, a principal component analysis was executed which allowed them to find an umbrella of terms for variables that highly correlate with a factor (Haferkamp et al., 2012, p. 93). The analysis for the motivations of hosting an online profile was based on 23 items selected from the uses-and-gratifications scale (Haferkamp et al., 2012, p. 93). The uses-and-gratifications scale assessed the reasons why people use a social networking site (Haferkamp et al., 2012, p. 93). The principal component analysis resulted in seven factors: Self-presentation, entertainment, support, promotion of career, coordination, relationship seeking, and cultivation of contacts (Haferkamp et al., 2012, p. 94). It turned out that males put a higher priority on relationship seeking than females do (Haferkamp et al., 2012, p. 94). Females also placed a higher value for the entertainment motive (Haferkamp et al., 2012, p. 95). Next, Haferkamp et al. (2012) performed another principal component analysis based on people's motivations for joining groups which included 18 items measured on a five point Likert Scale and resulted in three factors (p. 94). These three factors were attention, organization and self-presentation (Haferkamp et al., 2012, p. 94). This analysis suggested that females were more likely to join specific groups for self-presentation (Haferkamp et al., 2012, p. 95). Another principal component analysis was used to underline the perception of other people's online profiles (Haferkamp et al., 2012, p. 94). Perception of other people's online profiles was

investigated using 17 items with a five point Likert Scale (Haferkamp et al., 2012, p. 94). The umbrella factors coming from this final analysis were entertainment, information, social comparison and searching for friends (Haferkamp et al., 2012, p. 94). The results showed that females had a greater motive for social comparison (Haferkamp et al., 2012, p. 95). This suggests that females compare themselves with others more often than males (Haferkamp et al., 2012, p. 95). Results also reflected that males are more inclined to search for people when looking at other people's online profiles (Haferkamp et al., 2012, p. 95). In all, Haferkamp et al. (2012) identified specific gender-related usage patterns of Facebook activities which indicate different motives for each gender (p. 96).

Rutledge et al. (2013) examined the following Facebook variables: Number of Facebook friends, time on Facebook and emotional investment to Facebook linking with body image (p. 2). Facebook is a visual medium that may be appealing to those who are concerned with their appearance because it allows them to carefully construct an image (Rutledge et al., 2013, p. 1). Since Facebook may fulfill the needs to invest in appearance, individuals who are more concerned with their looks may be more emotionally attached (Rutledge et al., 2013, p. 5). The Facebook Intensity Scale was used to measure these Facebook variables (Rutledge et al., 2013, p. 3). As for body image, appearance orientation and appearance evaluation subscales were measured, taken from the Multidimensional Body-Self Relations Questionnaire (Rutledge et al., 2013, p. 4). Appearance orientation captures the cognitive and behavioral investment in appearance (Rutledge et al., 2013, p. 4). For this subscale, high scorers place more importance on looks and low scorers are apathetic about their appearance (T. F. Cash, 2000). Appearance evaluation measures feelings of attractiveness (Rutledge et al., 2013, p. 4). High scorers feel satisfied with their appearance and low scorers have a general unhappiness with their physical

appearance (T. F. Cash, 2000). Rutledge et al. (2013) used these subscales to measure body image, this suggests that these body image subscales are the most relevant to measure body image. Results showed that individuals who were more emotionally invested in Facebook and who spent less time on the site were more oriented towards their appearance (Rutledge et al., 2013, p. 4). Rutledge et al. (2013) also found that individuals who had more Facebook friends received more positive evaluations on their appearance (p. 4). However, Rutledge et al. (2013) did not assess how users spend their time on Facebook, therefore, the purpose of this study is to analyze the frequency of specific Facebook activities that have a correlation with low body image (p. 6).

Present Study

The purpose of this study was to further assess the relationship between Facebook and body image by tracking the frequency of specific Facebook activities that correlate to low body image. By looking at specific Facebook activities, one can pin point how individuals are using Facebook instead of focusing on the amount of time on Facebook. Frequency will determine how often an individual uses a Facebook activity. This study focused on frequency of Facebook usage within certain Facebook activities correlating to low body image. A greater understanding of this relationship will help assess the cons of Facebook usage when looking at body image. This information could be especially helpful for clinicians working with college students who may be suffering from depression, anxiety, and/or low self-esteem related to poor body image. If clinicians better understood what was influencing poor body image, they may be better able to help college students with aspects of their well-being such as body image. The goal is to further assess whether males and/or females use more of certain Facebook activities that relate to low body image.

Hypotheses

1. Haferkamp et al. (2012) has concluded that males use more of the following activities: Editing profile picture and posting life events compared to females. On the other hand, females use more of the following activities: Viewing photos and browsing compared to males. Therefore, it was predicted that females who use the following activities: Viewing photos and browsing could have a lower body image as compared to males; and males who use the following activities: Editing profile pictures and posting life events could have a lower body image as compared to females.

2. Rutledge et al. (2013) stated that those who use Facebook more are more likely to have a lower body image. Therefore, it was predicted that males and females with high Facebook activity usage could have a lower body image compared to low users on Facebook.

Method

Participants

Sixty undergraduate students (30 males and 30 females) aged 18-24 from Laurentian University were used as a sample for this current study. Participants had an opportunity to obtain course credit by participating in this study through contacting the researcher by email which was listed on the Recruitment Script (Appendix A: Recruitment Script). Since this study did not scale age as a continuous variable, the mean age will not be available. Fifty percent of participants are within the age range of 18-19, 33.3% of participants were in the 20-21 age range and 16.7% of participants were between the ages of 22-24.

Materials

The Demographic Questionnaire was very brief but determines if participants are male or female and asks for participants age within the given age ranges. For example, 18-19, 20-21 or 22-24 (Appendix B: Demographic Questionnaire).

Participants completed a Multidimensional Body-Self Relations Questionnaire which measured appearance evaluation (general satisfaction with one's appearance) and appearance orientation (extent of investment in one's appearance) (T. F. Cash 2000). There were seven items that evaluated appearance evaluation and 12 items which evaluated appearance orientation. These items were rated on a five point Likert Scale (one being 'definitely disagree' to five being 'definitely agree'). As discussed in the literature review, a higher appearance evaluation score indicates that they are more content with their appearance and a higher appearance orientation score indicates that they place more of an importance on their appearance (Appendix C: Multidimensional Body-Self Relations Questionnaire).

Participants filled out a Self-Report Questionnaire in order to determine the frequency of specific Facebook activities, such as editing profile picture, viewing photos, browsing, and posting life events. Facebook activities were rated on a five point Likert Scale but coded into SPSS using a three point system to categorize type of usage (one being low, medium being two, and high being three). On this questionnaire, 'never' and 'rarely' were coded as low usage, 'sometimes' coded as medium usage, 'somewhat frequently' and 'frequently' coded as high usage. Then a frequency of Facebook variable was computed by adding all of the frequencies (1, 2, 3) and was split to define high users (7-12) and low users (0-6). Participants were then asked to rate whether the following two questions applied to them on a 1-3 scale: "My pictures portray

the image I want to present,’ and ‘My friends comments improve my mood.’” One being ‘Does Not Represent Me’ to three being ‘Represents Me’ (Appendix D: Self-Report Questionnaire).

Procedure

At the start of the session, participants were first given an Adult Consent Form (Appendix E: Adult Consent Form), Demographic Questionnaire, the Multidimensional Body-Self Relations Questionnaire, and finally the Self-Report Questionnaire. Upon completion of these questionnaires, participants were thanked for their participation and debriefed (Appendix F: Debriefing Form).

Results

The frequency of the following Facebook activities: Editing profile picture, posting life events, viewing photos and browsing were compared to each gender and been evaluated (Appendix G: Frequency of Facebook Activities).

To evaluate the second hypothesis, appearance evaluation scores and appearance orientation scores were subjected to a two-way analysis of variance having two levels of gender (male, female), and two levels of Facebook frequency (high, low). All effects were not statistically significant at the .05 significance level.

For appearance evaluation, the main effect of gender yielded an F ratio of $F(1, 55) = 1.750, p > .05$, indicating that the appearance evaluation scores were non-significant for males ($M = 20.40, SD = .621$) and females ($M = 20.17, SD = 1.290$) (Figure H1). The main effect of Facebook frequency yielded an F ratio of $F(1, 55) = 1.877, p > .05$, indicating that the appearance evaluation scores were non-significant between low ($M = 19.600, SD = 1.388$) and

high ($M = 20.979$, $SD = .349$) Facebook users (Figure H2). The interaction effect was non-significant, $F(1, 55) = 1.148$, $p > .05$ (Figure H3).

For appearance orientation, the main effect of gender yielded an F ratio of $F(1, 56) = .307$, $p > .05$, indicating that the appearance orientation scores were non-significant for males ($M = 35.76$, $SD = .998$) and females ($M = 37.03$, $SD = 2.072$) (Figure H4). The main effect of Facebook frequency yielded an F ratio of $F(1, 56) = 1.708$, $p > .05$, indicating that the appearance orientation scores were non-significant between high ($M = 34.89$, $SD = .556$) and low ($M = 37.90$, $SD = .556$) Facebook users (Figure H5). The interaction effect was non-significant, $F(1,56) = 1.618$, $p > .05$ (Figure H6).

Discussion

As previously hypothesized, females who use the Facebook activities: Browsing and viewing photos will have a lower body image as compared to males. On the other hand, males who use the Facebook activities: Posting life events and editing profile picture will have a lower body image as compared to females. The first hypothesis was supported by previous literature and statistics retained from the present study. Haferkamp et al. (2012) showed that females placed a higher value for the entertainment motive and females have a greater motive for social comparison (p. 95). This leads one to suggest that females using the Facebook activities viewing photos and browsing will have a poor body image compared to males. Social comparison is when individuals compare themselves to others and this action can lead to feelings of inadequacy (Sheldon, 2010). However, males put a higher priority on relationship seeking than females and males are more inclined to search for people when males look at other people's online profiles (Haferkamp et al., 2012, p. 95). This suggests that males want to show others that they participate in social gatherings or celebratory events especially with females. Males are also

more likely to edit their profile picture more than females (Haferkamp et al., 2012, p. 95). Again, males want to show others that they are very social as well as advertise their attractive physique to other females. From the Self-Report Questionnaire, there was an item asking for individuals to rate if the pictures portray the image they want to present (rated on a 1-3 scale) (Table I1). This table shows that more males than females agreed that their pictures portray the image they want to present. As previously mentioned, Rutledge et al. (2013) stated that Facebook is a visual medium that may be appealing to those who are more concerned with their appearance because it allows them to carefully construct an image (p. 1). Since Facebook may fulfill the needs to invest in appearance, individuals who are more concerned with their looks may be more emotionally attached (Rutledge et al., 2013, p. 5). This suggests that since males want to continually construct their image in order to attract females and get the attention of other males, they are more likely to use the Facebook activities: Editing profile picture and posting life events than females.

It was also predicted that that males and females with high Facebook activity usage will have a lower body image compared to low users on Facebook. Appearance evaluation and appearance orientation are used to measure body image comparing to the frequency of specific Facebook activities as well as gender in order to attempt to support the second hypothesis.

For the subscale appearance evaluation, there were no significant differences when comparing gender, thus, the second hypothesis was not supported. Even though there were no statistically significant differences, the trends have shown that males seem to be slightly more satisfied with their appearance than females are. These trends were also consistent with previous literature. Huang, Norman, Zabinski, Calfas, and Patrick (2007) conducted a study based on body image and self-esteem among adolescents. Huang et al. (2007) used the Body

Dissatisfaction Subscale of the Eating Disorder Inventory to measure body image and the Rosenberg Self-Esteem Scale to measure self-esteem and the results have shown that males are slightly higher on these scales than females (p. 1). Comparing frequency of Facebook activities to appearance evaluation also showed no significance. Looking at the frequency of Facebook variables (high users and low users), those with low frequency had the trend of having a lower appearance evaluation score, therefore, those individuals were less satisfied with their appearance. Perhaps these individuals limit their time on Facebook because spending more time on this SMW may increase their appearance concerns (Rutledge et al., 2013, p. 5). For example, they may avoid posting multiple pictures of themselves in fear of portraying an unattractive image or may limit their time viewing other friends pictures because social comparison may increase their appearance concerns (Rutledge et al., 2013, p. 5). According to the social comparison theory, people use social standards and others to evaluate themselves because most attitudes, opinions, and abilities cannot be verified by objective, nonsocial means (Sheldon, 2010). The social comparison theory predicts that upward comparisons with thin attractive individuals would lead to the lowering of their body image as long as participants considered the individuals to be similar to them (Sheldon, 2010). As previously stated, Haferkamp et al., (2012) found that females had a strong motive for social comparison (p. 95). This suggests that females compared themselves with others more often than males (Haferkamp et al., 2012, p. 95). However, those with high frequency of specific Facebook activities tend to have the trend of being more satisfied with their appearance. According to Rutledge et al. (2013) those who have a high frequency of Facebook tend to have more Facebook friends which is directly correlated to having a high appearance evaluation (p. 4). Having more friends increases the chances of receiving positive feedback (Rutledge et al., 2013, p. 4). The interaction was not statistically

significant but trends suggest that low users generally have a lower appearance evaluation score with females being lower than males. High users on the other hand, are more satisfied with their appearance with females being more content with their appearance than males. It is suggested that because of this high appearance evaluation for females, these individuals were more exposed to positive commentary on their pictures and/or posts than males were due to their high number of Facebook friends. Within the Self-Report Questionnaire, there is a question pertaining to friends comments improving one's mood (Table I2). The frequencies that belong to this questionnaire have shown that more females reported that their friends comments improve their mood. Therefore, it has been shown that females have a lower appearance evaluation score as a low user, and males have a lower appearance evaluation score as a high user.

For the subscale appearance orientation, again there are no significant differences when comparing gender, consequently, the second hypothesis was not supported. However, it has been suggested by the trends that females place more of an importance on how they look than males do. According to Plante and Maurer (2010) females who have a high appearance orientation score are more likely to internalize harmful cultural standards of attractiveness and tend to be very self-conscious about the way they appear to others (p. 157). To females, male's attention, especially sexual attention is the gauge of their self-esteem which is correlated to body image (Plante & Maurer, 2010, p. 157). This type of behavior is called self-objectification which indicates low self-esteem and low self-worth (Plante & Maurer, 2010, p. 157). According to Noll and Fredrickson (1998) self-objectification is defined as valuing one's own body more from a third person perspective, focusing on observable body traits "How I look" rather than a first person perspective focusing on privileged traits, for example, "What I'm capable of" or "How I feel" (p. 624). Self-objectification creates increased opportunities to experience shame about

one's body, this in itself leads to poor body image and a lower self-esteem (Noll & Fredrickson, 1998, p. 624). Shame is often described as a moral emotion to attain society's set standards such as standards of attractiveness (Noll & Fredrickson, 1998, p. 624). The mere anticipation of shame motivates conformity to these standards of attractiveness (Noll & Fredrickson, 1998, p. 624). Comparing frequency of Facebook, there was no significance to be shown but then again the trends suggest a particular pattern of differences that are interpreted as having a poor body image. These trends show that low users on Facebook tend to place more of an importance on how they look than high users. According to Rutledge et al. (2013) individuals who spend less time on Facebook and had an emotional attachment are more oriented towards their appearance and have less positive views of their appearance (p. 4). O'Brien, Hunter, Halberstadt, and Anderson (2007) state that people reporting a greater tendency to compare their physical appearance with others reported lower satisfaction with their appearance (p. 253). Those individuals also put a greater investment in personal appearance (O'Brien et al., 2007, p. 253). As it turns out low users place more of an importance on how they look than high users do. Females have the highest appearance orientation as a low user than males. Overall, males tend to have a relatively stable appearance orientation score whether they are a high or low user. The reason why appearance orientation scores of males are stable across the frequency of Facebook activities is due to the fact that males and females are both dissatisfied with their bodies but females come to that realization faster than males (Davis, Dionne, & Shuster, 2001). As said by Rutledge et al. (2013) individuals higher in appearance investment engage in a greater social comparison when exposed to media that depicts ideal images of attractiveness (p. 2). Neuroticism was also positively related to appearance orientation, which supports evidence that emotionally reactive females or males are more likely to perceive and respond to social cues than

those with low levels of this trait (Davis et al., 2001, p. 28). Neuroticism is characterized by anxiety, fear and loneliness (Davis et al., 2001, p.23). Psychological consequences of self-objectification appear to be intensified in high neurotic females (Davis et al., 2001, p. 28). Davis et al. (2001) stated that neuroticism is the single strongest psychological correlate of poor body image and low self-esteem (p. 23). Davis, Karvinen, and McCreary (2005) also indicated that neuroticism and appearance orientation were significant predictors of the drive for muscularity (p. 354). Muscularity is the pursuit of culturally explicit body shape ideals specifically for males (Davis et al., 2005, p. 349). This connects with exactly what Rutledge et al. (2013) has stated repeatedly in regards to people who use a great amount of Facebook are more oriented towards their appearance. In essence, they will have less positive views of their appearance, consequently, they spend a great deal of time grooming themselves in order to feel confident within themselves. In general, low users place more of an importance on how they look than high users, especially if they are female. For high users females do not spend an extended amount of time on their looks which can indicate that they are more comfortable with the way they look. This can be due to the fact that females may have more Facebook friends which can increase the opportunity to receive positive commentary on their profile. Males who are high users spend a greater investment on their looks than females do and this may be due to high levels of neuroticism which can be a strong predictor for the drive aimed at muscularity.

Limitations

As within any study there are limitations one has to point out in order for future research to be more successful. The results have shown that there was no significance possibly due to the fact that this study possesses a small sample size. Gathering a larger sample size, such as 100 males and 100 females, would increase power to reject the null hypothesis thereby being

significantly different. Because of the small sample size, this study was unable to attain significance. Due to this non-significance, the second hypothesis was not supported. The Self-Report Questionnaire was very subjective in asking how often individuals use a specific Facebook activity. A person may not know exactly how often they use that Facebook activity. It would be beneficial to scale time on specific Facebook activities as a continuous variable instead of being asked how often they think they use a specific Facebook activity. It was also difficult to attain significance because most participants ended up being around the same frequency for specific Facebook activities, therefore, gathering a larger sample size would decrease this outcome.

Conclusion and Future Directions

This was an exploratory study to further investigate this particular relationship between Facebook and body image. Even though there was no significance within the results for the second hypothesis, the trends that have been displayed imply that there is something extra that people need to consider. These trends indicated that there is something people are missing when it comes to this relationship. These patterns show that high users are not the only type of user people should worry about, it is the low users that need more attention and future studies should examine this relationship further. This study marks the starting point for these trends between gender and type of user on Facebook. Therefore, it is advantageous to include the analysis of Facebook usage within the clinical setting specifically for students suffering from low self-esteem, anxiety and depression since Facebook is a huge part of the media today. This analysis will indicate whether the individual is a low or high user and being a low or high user can say different things about a person concerning body image. Mann et al. (2004) stated that self-esteem was shown to serve the fundamental psychological function of buffering anxiety. Empirical

studies have shown that bolstering self-esteem in adults reduces anxiety (Mann et al., 2004). With this association, high self-esteem can actually lower anxiety and if clinicians were to help heighten a person's body image, a higher self-esteem would result. Brennan, Lalonde, and Bain (2010) also stated that not only does body image dissatisfaction affect one's behavior, it also affects how one feels about oneself. Therefore, body image is associated with depression, low self-esteem and feelings of shame (Brennan et al., 2010). This study reinforces that Facebook should be analyzed for those college students who are suffering from low self-esteem, anxiety and depression due to poor body image.

Future studies should consider using a Facebook tracker which is a better option for tracking Facebook activities accurately. Future research should also measure time on Facebook activities as a continuous variable because it is much easier to see if a person is using a Facebook activity for an excessive amount of time. Now that this study has revealed which Facebook activities have a relationship to low body image, future studies can start looking for a correlation between specific Facebook activities and high body image.

References

- Anderson, B., Fagan, P., Woodnutt, T & Chomorro-Premuzic, T. (2012). Facebook Psychology: Popular Questions Answered by Research. *Psychology of Popular Media Culture*, 1, 23-27. Doi:10.1037/a0026452
- Brennan, M., Lalonde, C., & Bain, J. (2010). Body Image Perceptions: Do Gender Differences Exist? *Psi Chi Journal of Undergraduate Research*, 15(3), 130-138.
- Brown, J. D., & Marshall, M. A. (2006). The Three Faces of Self-Esteem. In M. Kernis (Ed.), *Self-esteem: Issues and answers*. New York: *Psychology Press*: 4-9.
- Cash, T. F. (2000). The Multidimensional Body-Self Relations Questionnaire User's Manual. Retrieved from the author at www.body-images.com
- Cash, T. F. (2004). Body image: Past, Present, and Future. *Body Image*, 1(1), 1-5. Doi:10.1016/s1740-1445(03)00011-1
- Davis, C., Dionne, M., & Shuster, B. (2001). Physical and Psychological Correlates of Appearance Orientation. *Personality and Individual Differences*, 30(1), 21-30. Doi:10.1016/s0191-8869(00)00006-4
- Davis, C., Karvinen, K., & McCreary, D. (2005). Personality Correlates of a Drive for Muscularity in Young Men. *Personality and Individual Differences*, 39(2), 349-359. Doi:10.1016/j.paid.2005.01.013
- Dogan, T., Totan, T., & Sapmaz, F. (2013). The Role of Self-Esteem, Psychological Well – Being, Emotional Self – Efficacy, and Affect Balance on Happiness: A Path Model. *European Scientific Journal*, 9(20), 31-40.

- Grosbeck, G., Bran, R., & Tiru, L. (2011). Dear Teacher, What Should I Write on my Wall? A Case Study on Academic Uses of Facebook. *Procedia – Social and Behavioral Sciences*, 15, 1425-1430. Doi:10.1016/j.sbspro.2011.03.306
- Haferkamp, N., Eimler, S., Papadakis, A. & Kruck, J. (2012). Men Are from Mars, Women Are from Venus? Examining Gender Differences in Self-Presentation on Social Networking Sites. *Cyberpsychology, Behavior, and Social Networking*, 15(2), pp.91-98.
- Hoorn, A. (2007). A Short Introduction to Subjective Well-Being: its Measurement, Correlates and Policy Uses. Nijmegen: *Nijmegen Center for Economics*: 1-12. Retrieved from <http://www.oecd.org/site/worldforum06/38331839.pdf>
- Huang, J., Norman, G., Zabinski, M., Calfas, K., & Patrick, K. (2007). Body Image and Self-Esteem among Adolescents Undergoing an Intervention Targeting Dietary and Physical Activity Behaviors. *Journal of Adolescent Health*, 40(3), 245-251.
Doi:10.1016/j.jadohealth.2006.09.026
- Kalpidou, M., Costin, D., & Morris, J. (2011). The Relationship between Facebook and the Well-Being of Undergraduate College Students. *Cyberpsychology, Behavior, and Social Networking*, 14(4), 183-189. Doi:10.1089/cyber.2010.0061
- Mann, M., Hosman, C., Schaalma, H., & Vries, N. (2004). Self-Esteem in a Broad-Spectrum Approach for Mental Health Promotion. *Health Education Research*, 19(4), 357-372.
Doi:10.1093/her/cyg041
- Moody E. (2001) Internet Use and its Relationship to Loneliness. *Cyberpsychology & Behavior*, 4(3), 393–401.

- Noll, S., & Fredrickson, B. (1998). A Mediational Model Linking Self-Objectification, Body Shame, and Disordered Eating. *Psychology of Women Quarterly*, 22(4), 623-636.
Doi:10.1111/j.1471-6402.1998.tb00181.x
- O'Brien, K., Hunter, J., Halberstadt, J., & Anderson, J. (2007). Body Image and Explicit and Implicit Anti-Fat Attitudes: The Mediating Role of Physical Appearance Comparisons. *Body Image*, 4(3), 249-256. Doi:10.1016/j.bodyim.2007.06.001
- Plante, R., & Maurer, L. (2010). *Doing Gender Diversity*. Boulder, CO: Westview Press.
- Rutledge, C. M., Gillmor, K. L., & Gillen, M. M. (2013). Does this Profile Picture Make Me Look Fat? Facebook and Body Image in College Students. *Psychology of Popular Media Culture*: 1-8. Doi:10.1037/ppm0000011
- Sheldon, P. (2010). Pressure To Be Perfect: Influences on College Students' Body Esteem. *Southern Communication Journal*, 75(3), 277-298. Doi:10.1080/10417940903026543
- Thompson, S. H. (2012) Frazzled by Facebook? An Exploratory Study of Gender Differences in Social Network Communication among Undergraduate Men and Women. *College Student Journal* 46.1: 88-98.
- Walz, L. (2009). The Relationship between College Students' Use of Social Networking Sites and Their Sense of Belonging. University of Hartford, UMI Dissertations Publishing, *ProQuest*: 1-109.

Appendix A: Recruitment Script

Study Title: Facebook and Body Image

My name is Tovah Sloman and I am currently a fourth year undergraduate student in psychology supervised by Dr. Paul Valiant and I am studying the implications of Facebook to one's body image which is an aspect of their well-being.

The purpose of this study is to enable a better understanding of Facebook and its particular implications on one's well-being including body image. For this study, you will be asked to complete a series of short questionnaires. The study will take approximately 30 minutes to complete and you will receive partial course credit of .5%. This study is being conducted by Tovah Sloman and supervised by Dr. Paul Valiant.

Your participation in this study is strictly voluntary and you will be able to withdraw at any time, without any penalty. Anonymity and confidentiality are assured.

If you would like to volunteer for this study or would like further information, please contact me at tt_sloman@laurentian.ca

Thanks for your time,

Tovah Sloman

Appendix B: Demographic Questionnaire

1. Gender: Male_____ Female_____

2. Age: 18-19_____

20-21_____

22-24_____

Appendix C: Multidimensional Body-Self Relations Questionnaire

In the blank space, enter a 1 if you definitely disagree with the statement; enter a 2 if you mostly disagree; enter a 3 if you neither agree nor disagree; enter a 4 if you mostly agree; or enter a 5 if you definitely agree with the statement.

Definitely Disagree Mostly Disagree Neither Agree Nor Disagree Mostly Agree Definitely Agree

- _____ 1. Before going out in public, I always notice how I look.
- _____ 2. I am careful to buy clothes that will make me look my best.
- _____ 3. I would pass most physical-fitness tests.
- _____ 4. It is important that I have superior physical strength.
- _____ 5. My body is sexually appealing.
- _____ 6. I am not involved in a regular exercise program.
- _____ 7. I am in control of my health.
- _____ 8. I know a lot about things that affect my physical health.
- _____ 9. I have deliberately developed a healthy lifestyle.
- _____ 10. I constantly worry about being or becoming fat.
- _____ 11. I like my looks just the way they are.
- _____ 12. I check my appearance in a mirror whenever I can.
- _____ 13. Before going out, I usually spend a lot of time getting ready.
- _____ 14. My physical endurance is good.
- _____ 15. Participating in sports is unimportant to me.
- _____ 16. I do not actively do things to keep physically fit.
- _____ 17. My health is a matter of unexpected ups and downs.
- _____ 18. Good health is one of the most important things in my life.
- _____ 19. I don't do anything that I know might threaten my health.
- _____ 20. I am very conscious of even small changes in my weight.
- _____ 21. Most people would consider me good-looking.
- _____ 22. It is important that I always look good.

- _____ 23. I use very few grooming products.
- _____ 24. I easily learn physical skills.
- _____ 25. Being physically fit is not a strong priority in my life.
- _____ 26. I do things to increase my physical strength.
- _____ 27. I am seldom physically ill.
- _____ 28. I take my health for granted.
- _____ 29. I often read books and magazines that pertain to health.
- _____ 30. I like the way I look without my clothes on.
- _____ 31. I am self-conscious if my grooming isn't right.
- _____ 32. I usually wear whatever is handy without caring how it looks.
- _____ 33. I do poorly in physical sports or games.
- _____ 34. I seldom think about my athletic skills.
- _____ 35. I work to improve my physical stamina.
- _____ 36. From day to day, I never know how my body will feel.
- _____ 37. If I am sick, I don't pay much attention to my symptoms.
- _____ 38. I make no special effort to eat a balanced and nutritious diet.
- _____ 39. I like the way my clothes fit me.
- _____ 40. I don't care what people think about my appearance.
- _____ 41. I take special care with my hair grooming.
- _____ 42. I dislike my physique.
- _____ 43. I don't care to improve my abilities in physical activities.
- _____ 44. I try to be physically active.
- _____ 45. I often feel vulnerable to sickness.
- _____ 46. I pay close attention to my body for any signs of illness.
- _____ 47. If I'm coming down with a cold or flu, I just ignore it and go on as usual.
- _____ 48. I am physically unattractive.
- _____ 49. I never think about my appearance.
- _____ 50. I am always trying to improve my physical appearance.

- _____ 51. I am very well coordinated.
- _____ 52. I know a lot about physical fitness.
- _____ 53. I play a sport regularly throughout the year.
- _____ 54. I am a physically healthy person.
- _____ 55. I am very aware of small changes in my physical health.
- _____ 56. At the first sign of illness, I seek medical advice.
- _____ 57. I am on a weight-loss diet.

For the remainder of the items use the response scale given with the item, and enter your answer in the space beside the item.

- _____ 58. I have tried to lose weight by fasting or going on crash diets.

1. Never
2. Rarely
3. Sometimes
4. Often
5. Very Often

- _____ 59. I think I am:

1. Very Underweight
2. Somewhat Underweight
3. Normal Weight
4. Somewhat Overweight
5. Very Overweight

- _____ 60. From looking at me, most other people would think I am:

1. Very Underweight
2. Somewhat Underweight
3. Normal Weight
4. Somewhat Overweight
5. Very Overweight

- _____ 61. Face (facial features, complexion)
- _____ 62. Hair (color, thickness, texture)
- _____ 63. Lower torso (buttocks, hips, thighs, legs)
- _____ 64. Mid torso (waist, stomach)
- _____ 65. Upper torso (chest or breasts, shoulders, arms)
- _____ 66. Muscle tone
- _____ 67. Weight
- _____ 68. Height
- _____ 69. Overall appearance

Appendix D: Self-Report Questionnaire

1. Which activities do you use more of on Facebook? (please circle as appropriate)

Browsing:

Never Rarely Sometimes Somewhat Frequently Frequently

Editing profile picture:

Never Rarely Sometimes Somewhat Frequently Frequently

Update and post life events to your timeline (ex. relationships):

Never Rarely Sometimes Somewhat Frequently Frequently

Viewing photos:

Never Rarely Sometimes Somewhat Frequently Frequently

2. Please rate on a 1-3 scale how you feel on the following statements:

(1 – This Does Not Represent Me, 2- In The Middle, 3- Represents Me)

My pictures portray the image I want to present_____

My friend's comments improve my mood_____

Appendix E: Adult Consent Form

Tovah Sloman

Laurentian University

I, _____, am interested in participating in this study on Facebook and its relation to one's body image conducted by _____, fourth year student and supervised by Dr. Valliant, Professor at the Psychology Department, Laurentian University. The purpose of the study is to better understand the relationship between one's body image and Facebook.

If I agree to participate, my participation will consist essentially of attending a 40-50 minute session during which each participant will complete a few questionnaires. I will also be asked to complete a general survey which asks about demographic information. My information will be confidential and I will remain anonymous and the only person who will have access to my information will be the researcher and supervisor. At the end of the study all information will be deleted. No personal information will be disclosed.

I understand that since this study deals with personal information about body image, it might cause slight discomfort. If at any point I feel uneasy I will inform the researcher immediately. I have been assured by the researcher that every effort will be taken to minimize these occurrences.

My participation is strictly voluntary and I am free to withdraw from the study at any moment or refuse to participate without any penalty. Although it would be preferable that I answer all of the questions, if I am uncomfortable with any particular question, I may refuse to answer.

I have also received assurance from the researchers that the information I will share will remain strictly confidential. There are two copies of this consent form, one which the researchers keep and one which I keep.

If I have any questions or concerns, I may call Dr. Valliant.

Participant's Signature: _____ Date: _____

Researcher's Signature: _____ Date: _____

I wish to receive a summary of the results of this study at the following address:

THANK YOU FOR YOUR PARTICIPATION.

Appendix F: Debriefing Form

Tovah Sloman

Laurentian University

The purpose of this study is not only to collect data but for participants to learn what psychology research is actually like. This experiment gives students opportunities to see how experiments work and how we test the hypothesis. I am working with Dr. Valliant in the psychology department at Laurentian University.

In the beginning you were briefed to a very limited extent due to a variety of reasons. When we are studying how people think about social issues, we do not give a full description on the experiments purpose. This is the most efficient way to receive a natural response. On the other hand there are a few things that I will elaborate on regarding this experiment.

I'm looking at the relationship between Facebook and student's life and how they live it. You were asked in the end to fill out a Self-Report Questionnaire. This questionnaires purpose was to see how often they use a Facebook activity. This is important because I would like to compare which gender uses more of which Facebook activity.

I wanted to specifically look at gender differences relating to body image. Social networking sites have a huge influence on one's life. It influences how a person sees themselves versus how someone else views them. Males and females have not been investigated enough in this particular area and I would like to explore this research in order to gain a deeper understanding of how Facebook make us look at ourselves in a different way.

The Multidimensional Body-Self Relations Questionnaire was used to see how students view themselves using 2 subscales. I am hoping to find the truth behind body image and to see whether it is applicable in the demographic I'm currently studying.

I hope you understand the purpose of this experiment and why I left so many questions unanswered.

If you require counselling services at this point in the session please let me know. Here are some helpful resources:

- Teens help line: 1-800-668-6868
- Teenage help line: 1-800- 394-4673

Thank you for participating, you were a big help. Without your participation the truth about body image and Facebook could not be answered. If you have any questions at all, please feel free to ask. I would be happy to help. If you have any questions related to the issues addressed here, you can contact Dr. P. Valliant. Thank you again for participating.

Appendix G: Frequency of Facebook Activities

Table 1

Frequency of Usage for the Activity Browsing

Frequency	Low	Medium	High
Male	3	5	22
Female	0	6	24
Total	3	11	46

This table identifies the frequencies comparing males and females for the activity named browsing.

Table 2

Frequency of Usage for the Activity Editing Profile Picture

Frequency	Low	Medium	High
Male	19	7	4
Female	19	8	3
Total	38	15	7

This table identifies the frequencies comparing males and females for the activity named editing profile picture.

Table 3

Frequency of Usage for the Activity Posting Life Events

Frequency	Low	Medium
Male	24	6
Female	27	3
Total	51	9

This table identifies the frequencies comparing males and females for the activity named posting life events.

Table 4

Frequency of Usage for the Activity Viewing Photos

Frequency	Low	Medium	High
Male	2	11	17
Female	0	7	23
Total	2	18	40

This table identifies the frequencies comparing males and females for the activity named viewing photos.

Appendix H: Figures Displaying Results

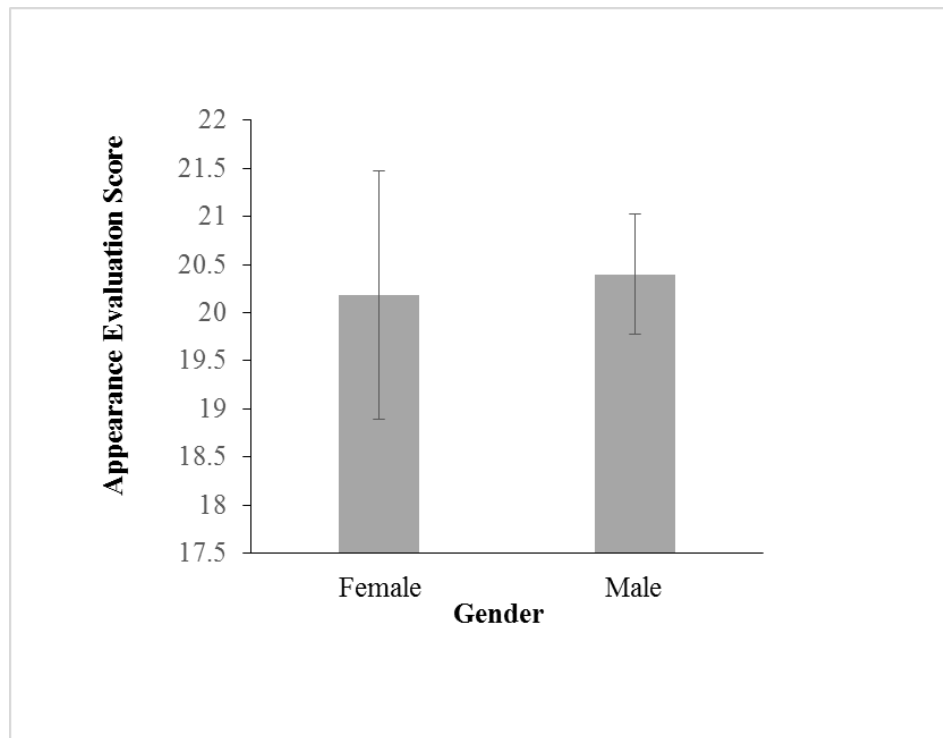


Figure 1. Mean difference values (ms) representing appearance evaluation scores between each gender. No significant differences were found for appearance evaluation scores comparing gender. Standard errors are represented in the figure by the error bars attached to each column.

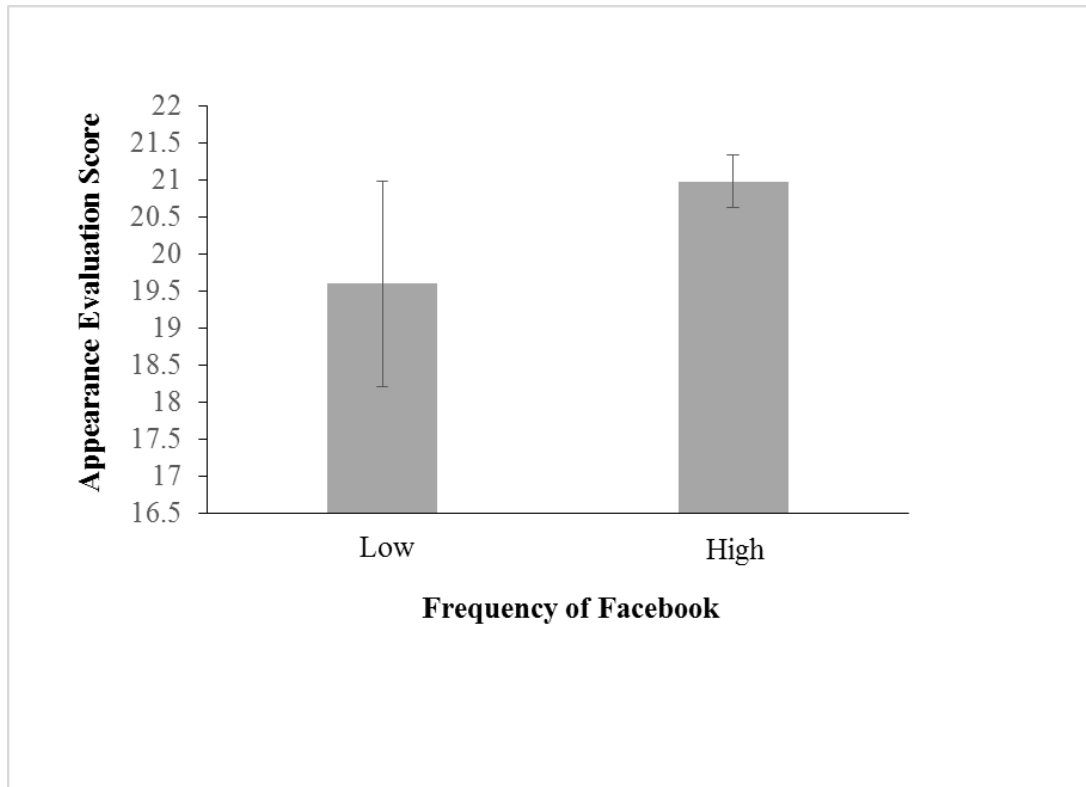


Figure 2. Mean difference values (ms) representing appearance evaluation scores between the frequencies of Facebook activities. No significant differences were found for appearance evaluation scores comparing high and low users. Standard errors are represented in the figure by the error bars attached to each column.

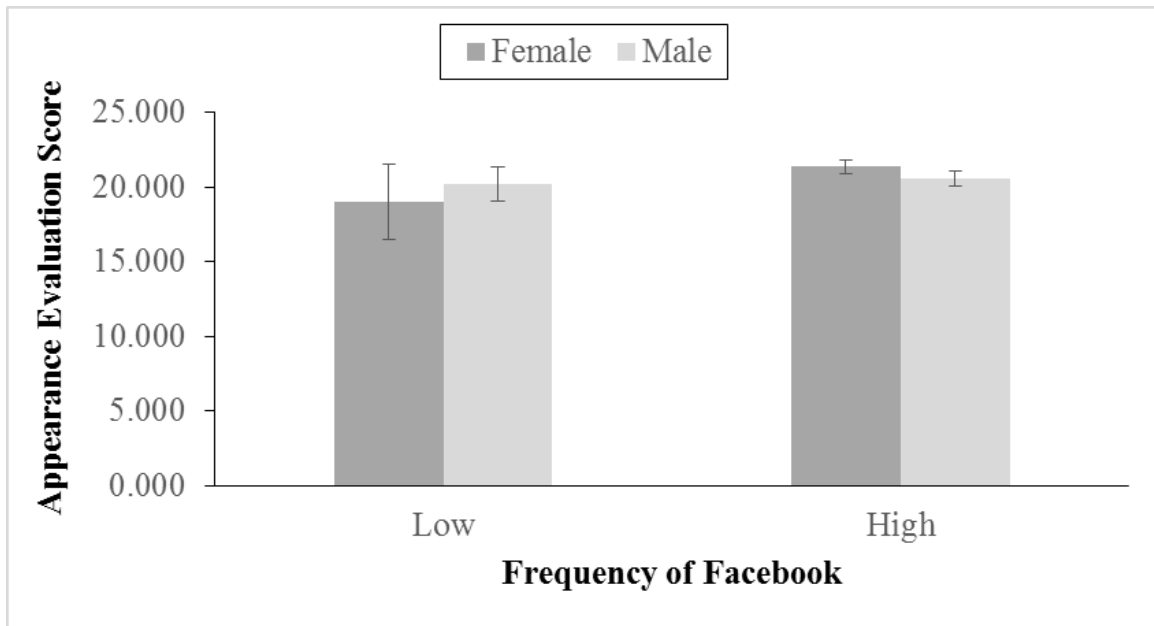


Figure 3. Mean difference values (ms) representing appearance evaluation scores between each frequency category comparing gender. No significant differences were found for appearance evaluation scores comparing frequencies of Facebook activities and gender. Standard errors are represented in the figure by the error bars attached to each column.

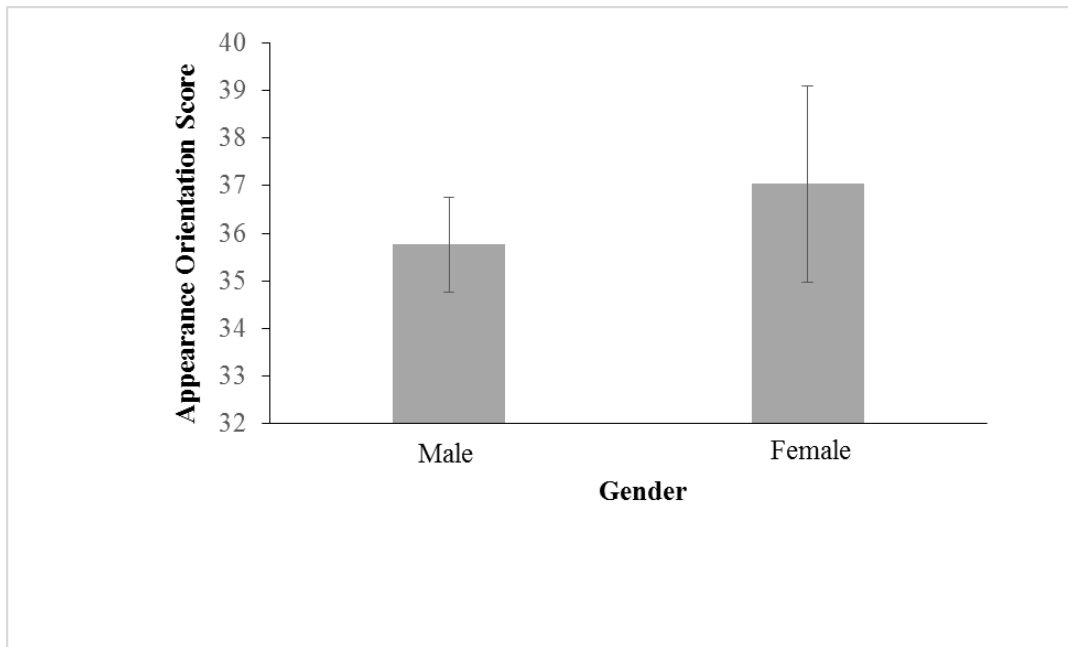


Figure 4. Mean difference values (ms) representing appearance orientation scores between each gender. No significant differences were found for appearance orientation scores comparing gender. Standard errors are represented in the figure by the error bars attached to each column.

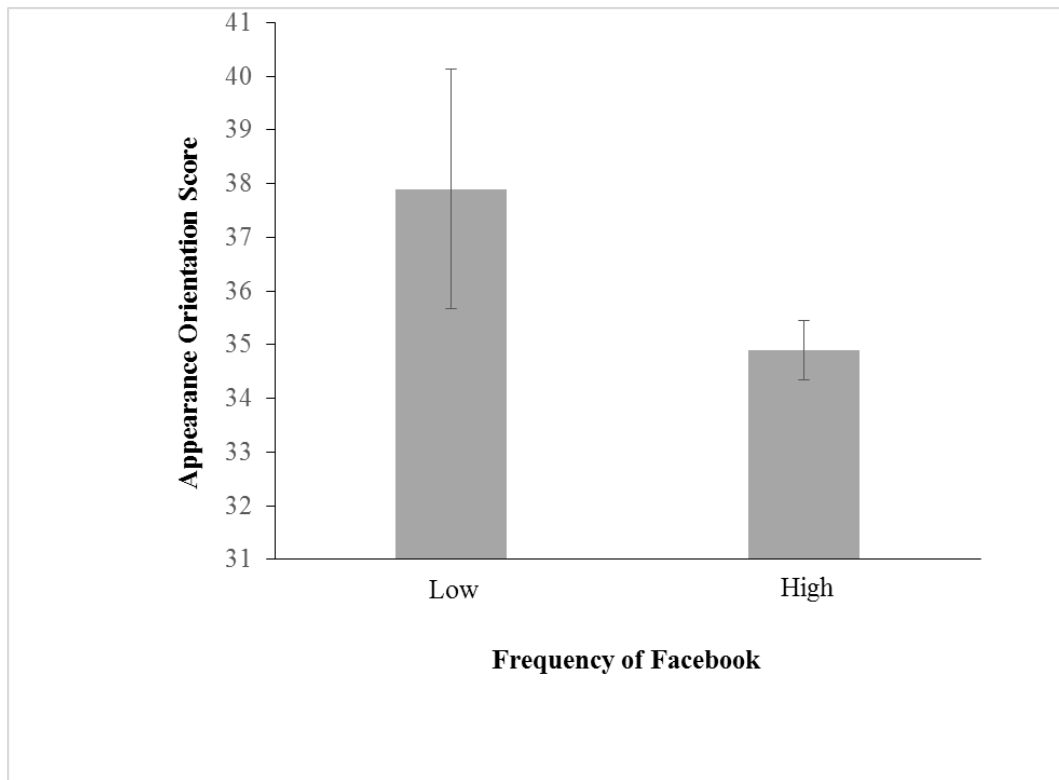


Figure 5. Mean difference values (ms) representing appearance orientation scores between the frequencies of Facebook activities. No significant differences were found for appearance orientation scores comparing high and low users. Standard errors are represented in the figure by the error bars attached to each column.

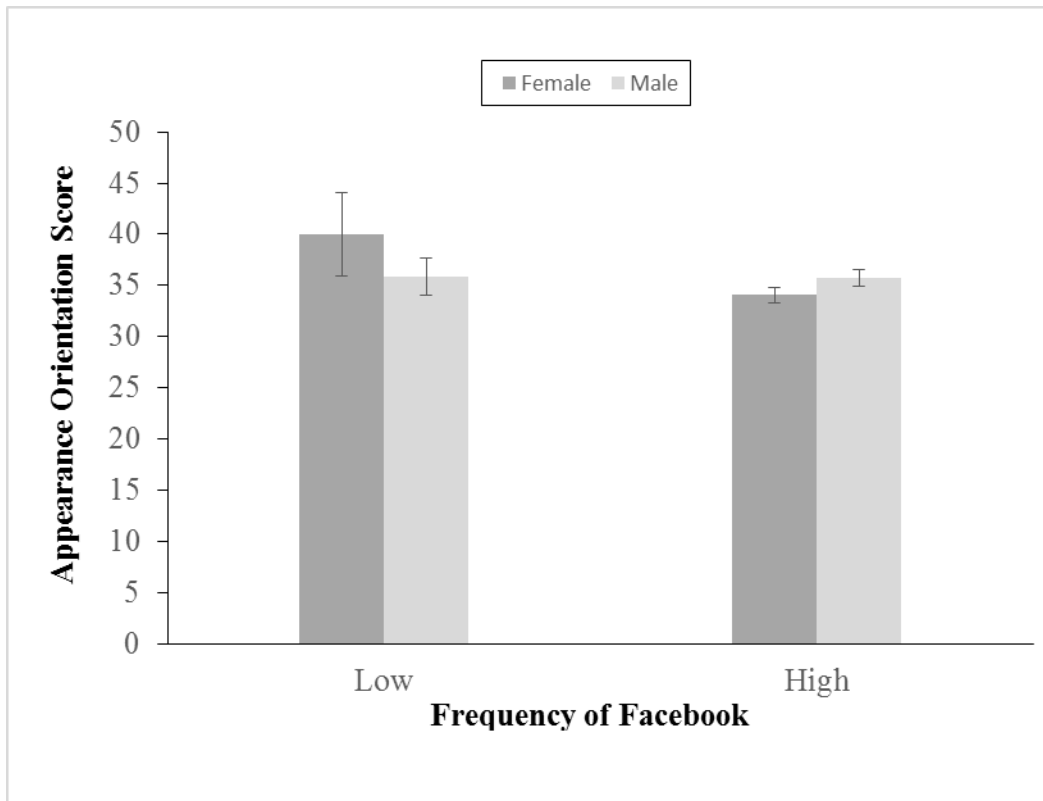


Figure 6. Mean difference values (ms) representing appearance orientation scores between each frequency category comparing gender. No significant differences were found for appearance orientation scores comparing frequencies of Facebook activities and gender. Standard errors are represented in the figure by the error bars attached to each column.

Appendix I: Self-Report Questionnaire Item Two Results

Table 1

Gender	This Does Not Represent Me	In The Middle	Represents Me
Male	1	11	18
Female	0	14	16
Total	1	25	34

My Pictures Portray the Image I Want to Present (Rated on a 1-3 scale)

This table identifies the frequencies between males and females on the question asking to rate whether their pictures portray the image they want to present.

Table 2

Gender	This Does Not Represent Me	In The Middle	Represents Me
Male	5	12	13
Female	1	15	14
Total	6	27	27

My Friends Comments Improve my Mood (Rated on a 1-3 scale)

This table identifies the frequencies between males and females on the question asking to rate whether their friends' comments improve their mood or not.